

REMARKS

Applicants have amended claim 1 based on the disclosure, for example, at page 13, lines 6-14, of the specification. Applicants have amended claim 4 to appear in independent form.

Claim 20 has been cancelled to reflect the amendment of claim 4.

Applicants note that the Office Action Summary lists claim 20 as withdrawn for the first time during this examination. The body of Action does not deal with claim 20, and the Examiner does not explain why he has withdrawn this claim from examination. However, the Examiner has rejected claim 4, which depended from claim 20 depending from claim 1. Applicants assume that the Examiner did indeed examine claim 20, because he has rejected claim 4, which depended from claim 20.

Claims 1, 2 and 4-7 have been rejected under 35 USC 103(a) as unpatentable over U.S. Patent No. 5,342,474 (Mohara) in view of U.S. Patent No. 6,631,552 (Yamaguchi). Applicants respectfully traverse this rejection.

Claim 1 at the time of the previous Amendment stated that the control device is configured to set only one feed stop position for the electronic components in the storage tape by using a head electronic component of the storage tape. In response to the Examiner's contention that Yamaguchi discloses this limitation, applicants first explained that "all Yamaguchi teaches is an adjustment of positioning of a mounting head for sucking up the electronic components. Yamaguchi does not disclose at all any adjustment of a stop position of a storage tape from which the mounting head sucks up electronic components." Second, applicants explained that "Yamaguchi's adjustment is a sequential adjustment where a suctioning posture of one electronic component is used for adjusting the suctioning position of a next electronic component in the storage tape." See page 6 of the Amendment filed October 8, 2007.

In this Action, all the Examiner has provided to respond to applicants' arguments is the statement, "So if a component tape is being fed of a signal component with a fixed pitch and spacing no further adjustment would be needed after said head component." See page 2 of the Action. The Examiner has completely failed to respond to applicants' first argument that

Yamaguchi's positioning of the pickup position is not the claimed positioning of the feed stop position.

Yamaguchi teaches adjusting a "suction position" based on the feedback of the previous component pickup. The adjustment of Yamaguchi's suction position is performed by adjusting the position of Yamaguchi's suction nozzle 21 in the X-Y plane shown in FIG. 2 of Yamaguchi. See Yamaguchi's equation (1) in column 8 for Yamaguchi's two dimensional nozzle position adjustment, i.e., in the X and Y directions.

On the other hand, the claimed control device sets the "feed stop position" for the electronic components, which is not a suction position. The specification explains at page 13, lines 6-14, that a feed stop position is a position of a storage tape that is determined by the movement of drive motors for the storage tape, and a pickup position, i.e., the suction position, is a position of a suction nozzle where it picks up an electronic component resting at the feed stop position. Thus, in the claimed invention, when the claims are construed in light of the specification, both the suction position and the feed stop position are independently adjusted. On the contrary, Yamaguchi's device adjusts only the suction position.

For the Examiner to understand that the claimed control device adjusts the feed stop position, applicants have amended claim 1 to state that the control device sets the feed stop position by controlling the drive source so that the intermittent feeding of a storage tape stops at the only one feed stop position. Yamaguchi discloses no control device that controls a driver motor to set a feed stop position of Yamaguchi's storage tape, as required by claim 1.

Claim 4 states that the control device is configured to set the feed stop position of the electronic components in the storage tape so that the electronic component is positioned closer to the edge than the center of the opening when the electronic component is smaller than a predetermined size, and the control device changes the feed stop position to the center of the opening when the electronic component is larger than the predetermined size. Thus, the claimed controller sets two different feed stop positions depending on the size of the electronic component to be picked up.

In response to applicants' explanation in the previous Amendment that Mohara's FIG. 13, the sole basis for rejecting claim 4 in the previous Action, shows storage tapes of different pitches that have nothing to do with the claimed subject matter, in this Action the Examiner contends that "figure 3 described the various pickup positions for each size of component, in addition figure 18 shows the step for a center pick position." See page 2 of the Action. The Examiner misread the disclosure in Mohara.

First, Mohara's FIG. 3 shows the vertical movement mechanisms of Mohara's tape driving tips 52, 53 and 54. See, for example, column 6, lines 26-30, of Mohara. Mohara's tape driving tips 52, 53 and 54 engage with Mohara's oscillating lever 92 to drive Mohara's tape reel 119. See column 8, lines 32-63, and FIG. 4 of Mohara. Accordingly, the structure shown in Mohara's FIG. 3 does not show where Mohara's storage tape stops, i.e., the feed stop position, and only shows a mechanism to rotate the storage tape reel 119.

Likewise, Mohara's FIG. 18 shows the engagement between Mohara's oscillating lever 92 and tape driving tips 52, 53 and 54. The difference is that Mohara's FIG. 18 corresponds to a view looking at Mohara's device in a direction perpendicular to that in Mohara's FIG. 4. In other words, Mohara's FIG. 4 is a side view, and Mohara's FIG. 18 is a front view looking at the same structure. Thus, FIG. 18 has nothing to do with Mohara's feed stop position, as explained above.

Mohara does not teach or suggest the claimed controller setting two different feed stop positions depending on the size of the electronic component to be picked up.

Furthermore, claims 6 and 7 recite a recognition camera taking an image of the electronic component stored in the storage tape through the opening of the suppressor. The Examiner admits that Mohara does not teach or suggest the claimed recognition camera and instead relies on Yamaguchi for the teaching of the claimed recognition camera. However, Yamaguchi does not disclose the claimed recognition camera.

Yamaguchi discloses two types of cameras, i.e., component recognition camera 26 that recognizes a posture of component 72 picked up by a suction nozzle and board recognition

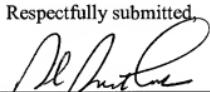
camera 22 that recognizes circuit board 23 where the component 72 is mounted. See column 5, lines 19-31, and column 7, lines 2-6, of Yamaguchi. None of Yamaguchi's cameras takes an image of the electronic component stored in the storage tape through an opening of a suppressor, as claimed.

The rejection of claims 1, 2 and 4-7 under 35 USC 103(a) over Mohara and Yamaguchi should be withdrawn because they do not teach or suggest the claimed invention as a whole.

In light of the above, a Notice of Allowance is solicited.

In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952, referencing Docket No. 606402017200.

Respectfully submitted,

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